DEPARTMENT OF THE INTERIOR

YELLOWSTONE NATIONAL PARK

OFFICE OF THE SUPERINTENDENT

FILE NO.

MONTHLY REPORT

of

Yellowstone National Park

Drawer

~~January~~, 1921

M O N T H L Y R E P O R T.

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T A B L E O F C O N T E N T S.

		Page
I.	GENERAL CONDITIONS,	1
II.	PERSONNEL,	4
III.	WORK COMPLETED,	7
IV.	WORK IN PROGRESS,	
V.	WORK BEGUN,	
VI.	PLANS OR PROPOSED WORK,	14
VII.	POLICIES,	14
VIII.	COST OF OPERATION,	14
IX.	OTHER MATTERS OF INTEREST,	15
	Wild Animals,	
	Birds,	19
	Fishes,	
	Seasonal Changes,	
	Arrests and Violations of Law,	
	Forest Fires,	
	Accidents and Casualties,	
	Medical Services,	19
	Natural Phenomena,	20
	Special Visitors,	20
	Motion Pictures,	20
	Miscellaneous,	21
X.	RECEIPTS AND REMITTANCES,	21

January 10, 1922

Dear Sir:

The following is my report on Yellowstone Park, and the operation of the park, for December, 1921:

I. GENERAL CONDITIONS:

Traffic and road conditions were ordinary for this time of the year. Daily trains arrived at Gardiner over the branch line of the Northern Pacific Railroad from Livingston, Montana, to take care of the local needs. The road from Park Headquarters to Gardiner, five miles, was kept open for motor cars throughout the month without difficulty. There was enough snow on this road to provide good sleighing most of the month, and it was necessary to run our horse-drawn snow plow over the first mile north from Mammoth occasionally, after heavy storms, to keep it open so motor cars could get over it with the mail and our local freight and express. At Mammoth more than the ordinary amount of snow fell, and we had to use the snow plow almost daily to keep paths open for handling the necessary work about Headquarters. The road from Mammoth to Cooke City via Tower Falls and Soda Butte Ranger Stations, was kept open throughout the month, to the extent that light teams and saddle and pack horses, accustomed to deep snows, could get over it with small loads, and the U. S. mail was hauled to Cooke in this manner three times a week, on the usual schedule. All other roads in the park were completely snowed in and passable only on skis or snowshoes, as is usual in winter.

Weather:

The weather conditions were so near normal in December as to create a general impression of a reasonably mild winter. Snowfall at Mammoth was excessive.

but this condition did not extend to many of the other stations in the Park. The following notes together with the enclosed Monthly Meteorological Summary, furnished by the Observer of the local Weather Bureau, gives the conditions at Mammoth in detail:

Temperature: Monthly mean, 21.2°, is 0.4° below normal. During the 10-day period from the 16th to 25th, below zero temperatures were recorded on five days, the minimum of 16° below zero occurring on the 19th.

Precipitation: Total, 2.25 inches, is 0.43 inch above normal. With the exception of the first two days, there was practicably no precipitation until the 18th, but during the remainder of the month it was of daily occurrence.

Snowfall: Total, 26.3 inches, is 12.0 inches above normal. It has been exceeded but three times in December during the past 35 years. The greatest depth of snow on the ground was 17.4 inches on the 21st, and the December record, dating back to 1903, shows but two greater depths (1919 and 1916). There were 16.0 inches on the ground at the end of the month, which with the exception of the year 1919, is the greatest of record for the date.

Wind: Total movement was about normal. The maximum velocity of 42 miles on the 15th and 30th has been equalled twice but not exceeded in December.

Sunshine: Percentage of possible 36. Normal 41.

The following table shows depth of snow at various points in the park on different dates for comparison:

		1920 Dec 31	1921 Nov 30	1921 Dec 31
Mammoth		6.6	16	16 ✓
Norris Station			24	36 ✓
Riverside	"	24	18	28 ✓
Gallatin	"	20	24	13 ✓
Bechler	"		56	50 ✓
Snake River	"	40	36	45 ✓
Mumb	"			40 ✓
Lake	"	23	16	32 ✓
Upper Yellowstone			20	32 ✓
East Entrance			12	(Line down)

	1920 Dec 31	1921 Nov 30	1921 Dec 31
Canyon Station		24	48
Tower Falls "		14	22
Buffalo Ranch		6	20
Soda Butte Station	19	12	56
Crevice Station		24	27
Hellroaring Snowshoe Cabin		10	19

Travel

As there is no regular tourist travel to the Park at this time of the year, this feature is of little significance. The following table shows the number entering the park during December, as compared with the number during the same period in 1920:

	Cars	Entering	Carrying	Mosls.	Total
December, 1920	0	0	0	10	10
December, 1921	0	0	0	6	6

Labor and Supply Market

There being no demand for labor in this vicinity in winter, no change in wage schedules and working conditions have been noted. A tie camp operated by the railroad company near the western entrance furnishes employment for a considerable number of men. There appears to be no more than about the usual number of idle men in Gardiner and vicinity of the north boundary this winter.

The price of supplies shows a gradual general downward tendency. The existing requirements of procuring supplies by transfer through the Chief Coordinator has so far proven a serious handicap to our work, located so many thousands of miles from the source of supply and in most instances causing serious delays. The cost of the supplies will in many cases be greater on account of high freight rates than if new goods were purchased nearer by. This was recently illustrated forcibly when we needed a carload of common lumber. Bids were solicited and copies sent to the Chief Coordinator, and we were informed that the lumber needed was available at the Hog Island Depot near Philadelphia. A careful computation of freight rates quickly revealed the fact that the lumber could be purchased on the Pacific Coast, under a bid received from a reliable firm, and laid down at Gardiner, Montana, at about one-half the cost of the freight alone from Hog Island, and upon re-

presentation of these facts you authorized us to accept the bid.

A quantity of steel pipe recently received from the same source is in bad condition from apparent long exposure to the weather, and the cost of working it up will be appreciably more than it would with new pipe. A careful computation of the cost of this pipe as compared with new pipe purchased nearer by will be made later and submitted for your information.

It would appear from our experience up to this time, that it would be to the best interests of the Government to make general exceptions to the existing rules relating to buying from surplus stock, so far as this park is concerned.

II. PERSONNEL:

Employees

On December 1st there were 77 employees of various classes on duty under this office, which had been decreased to 70 by December 31.

The following list shows the number of employees of various classes serving under appointment during the month, with a general statement of the kind of work in which they were engaged:

No.	Class	Kind of work performed
2	Asst. Engineers	In charge of engineering work in the park. (1 M.P.S. at large. Temporary, laid off close Dec. 31.)
5	Clerks	1 Disbursing Agent and Purchasing Clerk; 1 on cost account work and property; 1 on time keeping, orders, proposals and vouchers; 2 stenographer-typists on stenographic work, files, etc.. (One taken up from leave without pay Dec. 5)
2	Electricians	Read meters, did necessary line work, and operated power plant regular shifts, including Sundays.

3	Foremen	1 in charge of stables at headquarters; 1 repairing sprinkler wagons; 1 on bridge construction.
1	Telegraph Operator	Sent and received all Government Western Union messages; operated one shift on telephone switchboard.
1	Telephone Switchboard Operator	Operated telephone switchboard, daily shifts, including Sundays.
1	Master Mechanic	In charge of shops, and of repairs to heavy road machinery.
1	Blacksmith	General blacksmith work, including shoeing horses in shop, overhauling and repairing tools and equipment.
1	Master Painter	General shop work, including painting equipment and buildings at headquarters, also painting road signs.
1	Chief Lineman	In charge of power plant, telephone lines, and of maintenance crews on telephone lines.
7	Laborers	Teaming, freighting, and miscellaneous work at headquarters.
1	Handyman	Acting Steward and Master of Transportation.
1	Chief Buffalo Keeper	In charge of tame buffalo herd.
2	Asst. Buffalo Keepers	1 assisting Buffalo Keeper; 1 in charge of hay ranch operations at Slough Creek.
1	Master Rubber	In charge of general plumbing and water and sewer systems.
3	Automobile Mechanics	2 Repairing motor trucks and touring cars. 1 on duty at power plant.

1	Carpenter	Repairing buildings at headquarters.
1	Chief Park Ranger	Acting Game and Fish Warden since November 6, 1921.
1	1st Asst. Chief Park Ranger	In charge of Northern district.
2	Asst. Chief Park Rangers	1 in charge of Southern district. 1 in charge of Western district.
22	Park Rangers	1 Acting Chief Ranger beginning Nov. 6. On duty in Chief Ranger's office, patrolling park borders, protecting and giving special attention to game and fish.
43	Temporary Park Rangers	Making patrols.

In addition to the regular employees listed above under appointment, the following were employed temporarily by the day:

	On Dec. 1st	On Dec. 31st.
Cook	1	0
Mechanic	1	0
Plumber	1	0
Carpenter	1	0
Skilled Laborers	8	4
Laborers	1	2
2-horse Teamsters	1	0
	14	6
Appointees	63	64
	77	70

Leaves of Absence

During December, annual leaves of absence were granted as follows:

Carrie O. Hauresser	Steno-Typist	LWP to Dec. 5, 1921
Roy X. Gray	Laborer	Dec. 1-Dec. 3, 5 days
Thad O. Pound	Park Ranger	Dec. 1-Dec. 1(noon) ½ da.
Julia S. Stockett	Stenographer	Dec. 12-Dec.31, 17 days
Floyd R. Marriott	Laborer	Dec. 5-Dec.7(noon) 2½ days
B. C. Lacombe	Chief Buffalo Keeper	Dec. 6 (noon)- Dec. ~~31~~ 11 4½ ~~21½~~ days
"	"	Dec 12 - Dec 31 Sick Lv applied for

Miss.Jean Campbell.
Miss.Edith Franks.
Miss.AnnaMay Turley.
Miss.Julia Tear.
The above names are the Ladies .
from the Bozeman College.visiting here
during the Holodays.
Miss.Franks.and Miss.Campbell.
was the two ingered monday Dec 26th.1921.

Snake River District
Telephone line out of
order for the past two
days. Douglas Ross in the Bruhler Rim country
for some time to
look any word from him

McB		1
...st Asst	Jr	1
...st Ch		
Doy	1	
Scoyen	2	2
Pound	1	
Medora	2	
Little	3	
Anderson	4	
Frazier	5	
McLaughlin	6	
Dupuis	7	
Mun	8	
Purdue	9	
Bowman	10	
Davis	11	
Woodruff	12	
Anderson	13	
Bishop	14	
Cusler	15	
Burkett	16	
Carter	17	
French	18	
Butler	19	
Bicknell	20	
Cottrell	21	
Dzhukoff	1	
Mills	2	
Webb	22	22
Bauman	3	3
		29

Corrected Page

1	Carpenter	Repairing buildings at headquarters.
1	Chief Park Ranger	Acting Game and Fish Warden since November 6, 1921.
1	1st Asst. Chief Park Ranger	In charge of Northern district.
2	Asst. Chief Park Rangers	1 in charge of Southern district 1 in charge of Western district.
22	Park Rangers	1 Acting Chief Ranger beginning Nov. 6. On duty in Chief Ranger's office, patrolling park borders, protecting and giving special attention to game and fish.
5	Temporary Park Rangers	Making patrols.

In addition to the regular employees listed above under appointment, the following were employed temporarily by the day:

	On Dec. 1st	On Dec. 31st.
Cook	1	0
Mechanic	1	0
Plumber	1	0
Carpenter	1	0
Skilled Laborers	6 4	4 3
Laborers	1 1	2 2
2-horse Teamsters	1	0
	14 5	6 5
Appointees	63 64	64 63
	77 69	70 68

Leaves of Absence

During December, annual leaves of absence were granted as follows:

Carrie O. Haunesser	Stenog-Typist	LWP to Dec. 5, 1921
Roy X. Gray	Laborer	Dec. 1-Dec. 3, 3 days
Thad C. Pound	Park Ranger	Dec. 1-Dec. 1(noon) ½ da.
Julia S. Stockett	Stenographer	Dec. 12-Dec. 31, 17 days
Floyd R. Marriott	Laborer	Dec. 5-Dec.7(noon) 2½ days
B. C. Lacombe	(Chief Buffalo	Dec. 6(noon)-Dec.11, 4½ days
B. C. Lacombe	(Keeper	Dec. 12-Dec. 31, 20 days Sick Leave applied for

Wm. I. Davis	Asst. Engineer MPS At Large	Dec. 9-Dec. 21, 11 da.
Chester A. Lindsley	Asst. Supt.	Dec. 10-Dec. 11, 1 da.
Harry R. Marshall	Auto. Mechanic	Dec. 10-Dec. 11, 1 da.
John D. Fraser	" "	Dec. 10-Dec. 11, 1 da.
Sam T. Woodring	Park Ranger	Dec. 10-Dec. 11, 1 da.
August C. Neumann	Master Painter	Dec. 10-Dec. 11, 1 da.
Eivind T. Scoyen	Asst. Chief Park Ranger	Dec. 10-Dec. 11, 1 da.
Geo. T. Dustman	Clerk	Dec. 3,10, 17, ½ da ea. 1½ da.
Wendell M. Bishop	Park Ranger	Dec. 25-Dec. 31, 5 days
Wm. L. Bicket	Carpenter	Dec. 20-Dec. 21(noon)1½ da.
Daniel W. Tripp	Laborer	Dec. 14-Dec. 16, 3 da.
Nellie Nosch	Tele Operator	Dec. 22-Dec. 31, 6 da.
Calvin O. Davis	Park Ranger	Dec. 17-Dec. 31-12 da.
Geo. T. Dustman	Clerk	Dec. 27-Dec. 31, 5 da.
Clarence Scoyen	Laborer	Dec. 3 (noon)-Dec.6(noon) 2 da.
Wm. L. Bicket	Carpenter	Dec. 9-Dec. 10, 2 days
Eri A. Allen	Chief Lineman	Dec. 24-Dec. 31, 6 days
Wendell M. Bishop	Park Ranger	Dec. 19(noon)-Dec. 20(noon) 1 da.
Charlie R. Stinnett	Blacksmith	Dec. 16-Dec. 22, 6 days.
Harry Trischman	1st Asst. Chief Park Ranger	Dec. 24(noon)-Dec. 31, 5½ da.

Separations

Wm. I. Davis, Assistant Engineer M.P.S. At Large, Temporary, $175 and subsistence in field, laid off close of December 21st, 1921

Appointments

Clarence Scoyen, Laborer, $1200 p.a. effective December 1, 1921.

III. WORK COMPLETED:

None of the work in progress was completed during the month, therefore there is nothing to report under this heading.

As the park was not open to tourists, the only service to the public consisted of answering inquiries sent by mail.

IV. WORK IN PROGRESS:

(a) Construction of Physical Improvements.

Bridges

The crew working under Foreman White, constructing bridges in the East Forest Reserve, completed its work for the season on November 30, but due to heavy snow, bad roads and cold stormy weather, it was the evening of December 5th before the last of the crew reached Cody.

A review of the present bridge building program in the East Forest Reserve reveals information as follows: Morrson Creek Bridge, cost to date $2564.46, cost to finish, $134.95; Goff Creek bridge to date, $2006.09, to finish $105.59; Newton Creek bridge, to date $1743.78, to finish $307.65; Moss Creek, 6' x 8' box culvert, estimated cost $1200.00; Pagoda Creek 12 foot bridge, estimated cost $2000.00.

2564.46
134.95
2006.08
105.59
1743.78
307.65
1200 —
2000 —
$10062.51

It is noticeable that the Newton Creek bridge which is only a 12 foot span, cost approximately as much as the Goff Creek bridge which is a 20 foot span. The cause of this can be attributed to the fact that the cement for the Newton Creek bridge was purchased in Cody in a small quantity, and cost somewhat more per sack, and to the inclement weather conditions which prevailed during the construction of this bridge. Heavy snowfall occurred on several different occasions, increasing the labor efficiency. The days on which concrete was poured were cold, which made necessary constant fires around the structure for several days.

(b) Maintenance and Repair of Physical Improvements.

As there was no road maintenance in progress, there is nothing to report under this head.

(c) Miscellaneous Improvement Work.

The work of installing a new hot water heating plant in the cottage occupied by Chief Clerk Hill was almost completed, lacking a little on account of having to wait for material.

The work of moving two of the big boilers from the old Troop Barracks into the building used for shops was begun and good progress was made in digging the pit for the boiler room and coal bin and hauling in sand and gravel for the concrete.

Painting Department: The Master Painter and one assistant put in a large part of their time during the month of December in renovating by papering, kalsomining and painting the north end of the double stone residence adjoining the Superintendent's quarters on the north, for use of Assistant Engineer Burney. They also did one or two small jobs of painting and varnishing in other employees' quarters. Foreman Wm. Farrell with one helper devoted most of his time during the month to general repairing and overhauling of water wagons which are used in summer for sprinkling roads, and this work included painting them.

The Master Plumber and his assistant overhauled the steamheating plant in the stone quarters to be occupied by Mr. Burney, installed a new toilet and bath tub in another set of Employees Quarters in the small frame building formerly in use as a bake shop, installed 650 feet of radiation in connection with the new hot water heating system in Mr. Hill's quarters, and did several small repair jobs, in addition to giving the necessary attention to the general care and maintenance of the extensive water and sewer system.

Headquarters Corral: A foreman and one teamster were employed constantly during the month in charge of the stables and equipment, and doing necessary police and other duty around Headquarters. The two men and a team from this corral completed their work of getting out a pile of wood on to the road where it can be reached in summer, and hauled in for supplying the public automobile camp at Mammoth. About 150 cords of wood were stacked up ready for use. These men were also employed for a few days hauling the long longths of pipe received for use in the heating plant at the shops, from the depot at Gardiner, as this hauling had to be done with teams due to length of the pipe and condition of the road for trucks.

The carpenter did small repair jobs on buildings and equipment at Headquarters, and assisted in remodeling shops.

The blacksmiths shod horses, repaired equipment, and assisted in remodeling the shop building and installing the heating plant.

The force at the garage was busy repairing trucks and motor vehicles, and also assisted with the work of overhauling and remodeling the shops, when they could, /issuing and gasoline and oil.

The Telephone System and Power Plant, were maintained by the regular force, under the direction of the Chief Lineman, in addition to the regular work of operating the power plant and doing small jobs of installing new fixtures for worn out fixtures and making slight repairs. During December the force hung one 2½ K.W. transformer and did the necessary inside work for taking care of 2 heaters in the bath room at the Post Exchange.

The motor in the Carpenter Shop was moved and 9 new lights put in and one run of conduit changed. One line of conduit was removed in the boot shop and 4 additional lights installed in the garage.

The Power Plant was run 24 hours a day including Sundays, 3 operators taking 8-hour shifts each. The following table shows the results of the operation of the Power Plant for December, as compared with December, 1920:

	1920	1921
Total current generated in K.W. hours	12,370	23,540 ✓
Of this, sold to public utilities @ 5¢ per KW hr.	1,174	5,966 ✓
Consumed for street lighting	1,253	1,887 ✓
Balance, consumed for lighting govt. buildings and supplying power to shops, lost in transit, etc.	9,943	15,687
Peak load during the month, in kilowatts	34	54 Dec. 18

One of the main reasons for the increased peak load is the fact that our employees are gradually accumulating coolers, heaters, etc., which require additional current.

The great increase in the amount of current sold to public utilities as shown above is due to the fact that the Camps Company's motor showed a consumption of 4,526 k.w. hours for December and when read was running rapidly, indicating a heavy load. The camp was unoccupied except for three men who are retained in winter and occupy one tent house which consumes under ordinary conditions about 15-20 k.w. hours of current. The representatives of the company were notified immediately and upon investigation soon discovered where the short circuit

occurred, newely in the southeast corner of the camp where some amateur wiring had been done by employees last summer and when the tents were taken down last fall the wires had been twined around a pole in a careless manner. They soon burned through the insulation causing the partial short circuit and when found several of the wires were red hot, indicating that they were carrying an excessive overload. A bill for this current has been forwarded to the Camps Company in the usual manner, and its representatives here have made a report to the officers, accounting for its size.

The transportation and storehouse force was cut down to a minimum, the activities in these departments being limited. The storehouse men devoted most of their time to cleaning up storehouses and sorting property, and posting up the memorandum receipts and property records, which is a long, tedious job due to the very large list of names of property on our returns. This work is still in progress.

Office Force: No surveys or other outside work was performed by the Assistant Engineers during the month, but their activities were confined to such office work as occurred in their department.

A profile and map was made of the proposed road along the lake shore opposite the Lake Permanent Camp. Office files were revised to some extent and brought up to date. Considerable time was devoted to looking up information to compile data desired by the Bureau of Public Roads, relative to the construction and maintenance of roads and bridges in the Park.

A number of blueprints of different subjects were made for the files. The work was started of writing a complete set of rules and regulations to govern the conduct of employees and to guide and instruct them in their work.

The regular office force was smaller than usual during the greater part of the month, due to clerks being on leave. The usual routine work was accomplished. 747 letters and communications were received, and 556 sent out during December.

Ranger Force

Such regular necessary winter patrols as weather

conditions permitted were made under direction of Acting Chief Ranger Woodring assisted by Assistant Chief Ranger Douglas in the Southern District and by Assistant Chief Ranger Cooyen in the Western District. Douglas made one long trip on skis, leaving Lake Nov. 26th and returning January 6th. On this trip he visited all stations and snowshoe cabins in his district, taking men from the various districts along with him as needed, and making careful observation of snow and game conditions as he went. He visited the Upper Yellowstone, Snake River, and Bechler Stations, and Buffalo Lake on the west boundary, and found everything in the southern part of the park in a satisfactory condition. He reported 50 inches of snow at Bechler, 45 inches at Snake River, 40 inches at Thumb, 42 inches at the Buffalo Lake, and about 8 feet at the 6-mile post between Snake River and Lewis Lake, when he visited those points.

The telephone lines in the southern section of the Park and to Gallatin Station, upon which we depend largely for frequent and close information from the rangers, gave more than the usual amount of trouble during December, and the Gallatin line and the one between Lake and the East entrance are still out of commission. These two lines go through high, difficult passes which are dangerous to negotiate in winter due to danger from snow-slides, and it is not unlikely that the breaks are in these passes in which case it will be impossible to repair them until spring. Fortunately, however, both of these stations may be reached by a round-about way by long distance lines in case of extreme necessity.

The force employed in the Northern District was extremely busy with the special work assigned to them by Acting Chief Ranger Woodring and Acting Chief Game Warden McBride. The men on Crevice Station and Hellroaring Station devoted their energies towards trying to hold the elk inside of the park as we did a year ago, and holding a number of them back on the Slough Creek feeding grounds. In this they were only partially successful. At Tower Falls one ranger was in charge of the herd of surplus horses, and another was engaged most of the time in that vicinity hunting carnivorous animals. The rangers and assistant buffalo keeper at the two Slough Creek Stations devoted their time to feeding elk from the hay stacked there last summer, and driving away the tame buffalo that came in from the ranch and interfered with the feeding of the elk.

Buffalo Keeper Lamombe was on leave most of the month, and the necessary work of caring for the buffalo

at the ranch was carried on by one assistant keeper and one park ranger. They were busy trying to keep the elk away from the hay stacks and feeding the calf herd which had been kept up since vaccination, and they also began to feed the main herd on Dec. 28th.

Acting Chief Ranger Woodring made several patrols throughout the Northern District, making careful observations and reports. The policy of feeding elk and holding them inside of the park by force is one that is still questionable, and from his observations to date he is inclined to believe that with the present splendid protection that is being afforded the game animals along the north line in Montana, it might be better to let them go where they will and try to keep track of and protect them through cooperation and by rendering assistance to the game wardens and forest rangers who are especially detailed to that work at the present time. I am of the opinion that there is much merit in his contention, but both of us feel that further observations should be made during the present winter before a radical change of policy is made in this respect, though the elk have already gone beyond our reach in considerable numbers.

Acting Chief Game Warden McBride also made extensive patrols throughout the same country and has made a report covering his observations. He is not agreeable to letting the elk go outside, as he says he is afraid tooth hunters will get them a little later, but he admits that the holding back scheme has not been entirely successful this winter and estimated that there were about 600 outside at the end of December.

The work of catching and shipping the elk and buffalo to the New York Zoological Park was also looked after by these two men.

Improvements by Park Utilities

The only employees of the Hotel Company were the winter keepers. The Camps Company have three permanent men located at Mammoth, overhauling motor transportation and equipment. The Transportation Company closed up its automobile repair shops during December, but still retains a few men painting cars, running the steam heating plant at headquarters, and running the car that carries the mail between Mammoth and Gardiner. George Whittaker was present in the park himself and employed one clerk and a cook in connection with his postoffice store at Mammoth.

VI. PLANS OR PROPOSED WORK:

Plans for January include the ordinary routine work in the office, storehouses, power plant, switchboard office and stables. Usual winter patrols and possibly the looking up of the wild buffalo herd by the rangers stationed in the Southern and Western Districts. Special intensive patrols in the Northern District and possibly to some extent outside in the Absaroka National Forest to protect and keep track of the elk which are gradually leaving the park, by the men now stationed in this District and also by Acting Chief Game Warden McBride and Acting Chief Park Ranger Woodring; continuation of the war on coyotes and other carnivorous animals, and the necessary feeding of elk on Slough Creek and of buffalo at the buffalo ranch on Lamar River.

The Headquarters employees will also continue the work of installing the new heating plant in the shops building, and just as soon as the ice freezes to a proper thickness, will undertake the job of putting up the year's supply of ice for the Government, the hotel and camps companies and the local stores.

In connection with the operation of the power plant and switchboard, blank forms have been mimeographed and plans made to have daily reports submitted showing the results of the operation of the power plant, and number of calls received on the switchboard classified by different lines.

VII. POLICIES.

No new policies were adopted during the month. The observation and experience of the past month, however, has brought up the question of the advisability of discontinuing the practice of trying to hold the elk inside of the park along the north line, now that they are thoroughly well protected outside, and in connection with this the advisability of continuing the practice of feeding them on Slough Creek. But these questions must be decided a little later after continued observations.

VIII. COST OF OPERATION.

This data is shown on the Cost Report which is being forwarded this date to Superintendent Albright in San Francisco for perusal before it is transmitted to your office.

IX. OTHER MATTERS OF INTEREST.

Wild Animals

The natural conditions for our elk, deer, antelope and mountain sheep remained excellent during the month, and all reports received from every source indicate that they are in first-class condition with encouragement for a continuation of these conditions. Most reports have indicated that these animals were found in small bands throughout the Northern District, indicating a satisfied condition. The reports from the Southern District also indicate about normal conditions, with a few scattered bands of elk wintering there, most of them having gone as usual to the winter feeding grounds outside of the park and reports of their winter conditions there have not been received.

As usual, most of the big bands of elk have also left the Western District and are wintering in the National Forests adjoining the park.

Antelope: The antelope are all wintering near Gardiner and so far are in a fairly satisfactory condition, apparently getting enough to eat. They have been bothered to some extent by coyotes, and three have been killed along the fence during December. 28 antelope were found outside of the park, in their usual haunts near Electric, Montana, where they seem to be contented and are not being disturbed. No losses are believed to have occurred during December, except the three killed by coyotes.

Buffalo, two herd: This herd has given a lot of trouble in connection with the feeding of hay on Slough Creek, and quite a large number of them were driven back to the Lamar ranch repeatedly. Finally, it was decided essential to begin feeding them hay at the ranch, and this was done on December 23th, and by the end of the month about 250 of them had drifted in and were taking the hay. Since that time the balance of the herd has come in, and the calves have also been turned loose with the rest, and at present practically all of them are there together being fed hay daily. In connection with this feeding, much trouble was experienced in keeping the buffalo and elk away from the haystacks, even some of those that were fenced so it was thought they were secure being broken into and partially demolished. The elk broke in and ate up about 12 tons of hay in the lower meadow.

about 27 tons were fed to the buffalo, making a total of about 39 tons that was disposed of during December. Every effort was made by the two men stationed at the ranch to keep the elk and buffalo within bounds, and every minute of available time was devoted to the repair of the fences which were broken down daily. It was finally necessary to call for help to fix the fences securely, and it is believed that the trouble has now been permanently remedied.

Shipment of Buffalo: On December 6, 1921, under your authority dated Nov. 17, 1921, 3 female and 1 male buffalo from our tame herd were shipped to the New York Zoological Society. These were all young animals - 3 to 4 years of age - and were from the finest of the herd. They were shipped as a carload lot by express, and two female elk authorized December 3rd went in the same carload. Our Chief Buffalo Keeper, H. C. Lacombe, was sent along as an attendant. Notice was received that the shipment arrived safely on December 10th and was satisfactory.

Buffalo, wild herd: No effort was made to look up this herd during the month, and in only one instance was any of the wild buffalo heard from. Park Ranger Custer, of Lake Station, reported seeing one on Mist Creek between Pelican and Cold Creek. Plans are on foot to have a patrol made into the buffalo country during January.

Bears: None in evidence, as they are in winter quarters.

Deer: These, like the elk, are reported as being well scattered over the Northern District and outside of the Park, and all in fine condition. They were noted in specially large numbers in the Crevice Mountain district where one buck was killed by coyotes during the month.

Elk: Assistant Chief Ranger Douglas reports that on a recent long trip he learned that 50 to 100 elk (about the usual number) were wintering in the Bechler country, and about the usual little band of 15 to 20 on Snake River. Also that he had heard nothing of the condition of the so-called southern herd that winters in Jackson Hole. Another small band of 21 was seen in the Sylvan Pass country. 2 only were reported from the southeastern corner - Upper Yellowstone.

Assistant Chief Ranger Scoyen, in charge of the Western District, estimates that about 4,000 Elk summered in the park on the west side in the Riverside and Gallatin Districts, and about 2,000 of these are reported from Gallatin Station as having gone to Daily Creek and Taylors Fork outside of the park about six miles to winter. The large northern herd has been found throughout the Northern District during the month, and all reports received of them have been of the best. To indicate how widely they are scattered, Soda Butte reports having seen 3,540 during the month; and they were seen and reported in lots of from a few to several hundred all along the line from Soda Butte to Mulharen Creek. The attempts to keep the elk inside of the park line were reasonably successful up to well towards the end of the month, but they began to drift over in small bunches and by the end of December reports indicated that several hundred had gone out into the Absaroka National Forest east of the Yellowstone River, and into the Gallatin Game Preserve west of the Yellowstone, along the park line. They are still going out in considerable numbers, and since it seems to be impossible to hold them, it is contemplated after a little more investigation, abandoning the stations at Hellroaring and Crevice and using these men to better protect the elk wherever they may be found, by cooperating with the men stationed outside by the State of Montana's Game Department, and by the Forest Service, protecting them from would-be poachers and tooth hunters and keeping track of their wanderings for future reference with respect to the problem of the future handling of the herd.

Feeding of Elk: The elk have been fed from the two hay ranches on Slough Creek daily, by the men stationed there since December 6 and as high as 2,000 head have been noted in one day on the feed grounds. Since they began to leave the park over the line, however, this number has dwindled to some extent. This feeding is not being done as a present necessity, as there is plenty of natural feed for the elk on the range, but with a view to getting them accustomed to coming in to that locality for hay, so in case of a hard winter they can be held there and fed the hay which can be raised there at a minimum cost, thus saving them from starvation. The advisability of continuing this practise throughout the present winter, now that the elk have broken through the lines and many of them escaped from the park, is questionable, and can only be determined from future observations; but it may be that it will have to be kept up to some extent to care for some of the tamer animals that have become dependent upon the hay for existence.

Shipment of Elk: Two young female elk were shipped to the New York Zoological Society on December 6th, in a carload with four buffalo from our tame herd shipped to the same destination. This shipment was authorized by you on December 3, 1921. Some little difficulty was experienced in capturing them, as we have no good facilities for this work and only temporary corrals were used as a makeshift. Two elk were killed in making the capture. The total cost of catching, furnishing crates, and loading them at the express office was $63.70, which was paid by the Zoo.

Moose: Two moose were seen on the Tower Falls road on two occasions, 23 were seen by the two rangers on duty in the southeast corner and the fact that there was but one bull among the number shows the effect of the hunting in that vicinity last fall. While evidences of moose were noted in all parts of the Northern District that was patrolled during the month, and it is apparent that they are well scattered, the report of last month that 500 had been accounted for in this district was based on erroneous information.

counted early part of Feb by Dupuis

Mountain Sheep: A few of these animals were reported from various places in the Northern District, and those which winter in Gardiner Canyon were seen nearly every day by people traveling over the Gardiner road.

Predatory Animals: Signs seen indicated plenty of coyotes and a few wolves throughout the portions of the park thickly inhabited with game. Three antelope were killed near Gardiner, and one deer near Crevice, during the month, but these were the only depredations reported. Park Ranger Henry Anderson spent most of his time hunting predatory animals, and killed 12 coyotes. A few more were killed by regular park rangers and a few employees at Headquarters who are authorized to shoot them. The market for coyote skins is reported strong, making the incentive for killing them good.

Protection of Game Outside of the Park:

I have reported 500 known as for winter & about across Park Preserve.

While there was no open season in the adjoining states, there were several attempts at hunting out of season in Montana close to the Park line on the north. Deputy Game Warden Frank Bellar, of Montana, is stationed in charge of this District. He has occupied positions of this sort in Montana for a number of years and is well known as a most energetic and conscientious official in ferreting out violations of law and bringing the guilty

parties to justice. Since his assignment to this work he quite lived up to his reputation, and to date he has been instrumental in bringing to justice five important cases of illegal game killing, several of them being rather prominent citizens who did not expect to be caught. In all of these cases, heavy fines have been imposed, and it is thought that there will be but few further attempts to kill game out of season. Mr. Ballar has two other deputies at work in this vicinity. The U. S. Forest Service is cooperating with him in patrolling this game country, and our rangers stationed at Gardiner and Crevice have also been cooperating with him.

Birds

The usual winter varieties of birds including several kinds of ducks, jays, sparrows, Clarks Crows, etc., were noted.

Fires

None to note.

Accidents and Casualties.

Two young ladies, teachers in the State College at Bozeman, Montana, who were guests of Mrs. Hagerty, who runs the boarding house for our clerks, were slightly injured while coasting on December 26th. The coaster overturned after breaking one of the front runners on a sage brush, and Miss Edith Franks sustained a dislocated hip, and Miss Ann M. Turley received a cut on the scalp and an injured knee. Doctor Crawbuck happened to be close at hand, and they were cared for without delay and were able to return to their home in Bozeman at the end of their vacation period about a week later.

Births:

A daughter, Yvonne Olga, was born to Mr. and Mrs. August Christian Neumann, December 28th.

Sickness and Medical Service

Several cases of sickness was reported among our employees and their families during the month, but none of them were of a very serious nature. Our contract doctor, W. E. Crawbuck, reported having made 48 official

calls on our employees during the month.

Natural Phenomena

The big springs at Mammoth show rather more than usual activity and are especially active at the south end of Jupiter Terrace. The Beehive Geyser was examined by one of our rangers, and showed evidence of having played for the second time since the close of the park season, the first instance having been previously recorded. Report has just been received that it played again, the third time, on January 6.

Motion Pictures

No motion picture operators came to the park during the month. Permit No. 1, 1922, was issued during December, in favor of the Fox Film Corporation of New York, by the Chairman Mr. C. D. Hinkey, of Butte, Montana. Mr. Hinkey contemplates visiting the Park in January to get a few pictures of snow scenes and wild animals.

Special Visitors

Doctor Henry L. Williams, District Medical Officer of Dist. No. 10, U. S. Veterans' Bureau (Bureau of War Risk Insurance, Minneapolis, Minn.) on an official inspection trip to Billings, Butte, Missoula and Great Falls, visited Mammoth over night Dec. 13-14 and made a thorough inspection of our hospital building and equipment, and of the stone barracks, with a view to making a report on its condition, and facilities for establishing here a place for convalescing tubercular veterans. He was given entertainment, and every possible assistance to carry out his instructions. I have not a copy of his official report on the subject, but the impressions he gained were to the effect that such a unit could be established to care for about 125 men, but he doubts its advisability due to isolation and long severe winters when men of the semi-invalid type would have to remain indoors for long periods. He also agreed with me that this arrangement would not work out well in a National Park, where the entertainment of tourists is the most important objective.

School

The private school maintained by subscription at Park Headquarters was run most successfully by Mrs. L. K.

Marriott. A copy of her Monthly Report is enclosed, showing an attendance on 19 school days of 12 children of 224¾ days, lacking but 3¼ school days of being perfect, and no cases of tardiness.

Miscellaneous

Entertainments: Weekly picture shows were held in the amusement hall and were well attended. In addition to these picture shows, the Amusement Club staged excellent comedies on two occasions. Short dances also followed the shows on several occasions. Mrs. Marriott's school children gave a very successful Christmas entertainment on the evening of December 24th, which was followed by the regular community Christmas Tree. This was attended by practically every member of the community. The tree was arranged by the ladies, the expenses of ornaments and presents having been covered from a fund of $57 raised by popular subscription. Local dealers gave liberal discounts to this fund, and at least two presents, one orange, one apple, a candy cane and a bag of nuts and candy was provided for each of the children here, numbering approximately 35. Director Mather wired an additional $25.00 the day before the entertainment was given, and with this an additional present was bought for each child and thanks and congratulations wired to him.

Davidson
12'22
Morning Service

Religious Services: Services were held in the Chapel but once during the month, namely by Rt. Rev. H. H. Fox, Suffragan Bishop of the Episcopal Church of Montana, morning and evening of December 18th.

X. RECEIPTS AND REMITTANCES:

The monthly report of revenues due, collected, and transmitted during December, on the regular blank forms, is enclosed in duplicate. The total amount enclosed, namely $ 115.16, is described as follows:

Check No. 1598, dated December 9th, 1921, drawn by the Yellowstone Park Camps Company, Livingston, Montana, on The Northwestern National Bank, Livingston, to your order, amount 2.25

Voucher Check No. 1465, dated December 16th, 1921, drawn by the Yellowstone Park Transportation Company, on the National Bank of Montana, Helena, Montana, to your order, amount 107.45

Voucher Check No. 1133, dated December 16th 1921, drawn by the Yellowstone Park Hotel Company, on the National Bank of Montana, Helena, Montana, to four order, amount 4.71

Postal Money Order No. 49390, dated December 6th, 1921, drawn by the Postmaster at Yellowstone Park, Wyoming, on the Postmaster at Washington, D. C., amount ..... .75

$ 115.16

Acknowledgement of the receipt of the enclosed money is requested.

Cordially yours,

Chas

Fenton A. Lindley,
Acting Superintendent.

The Director,
National Park Service,
Department of the Interior,
Washington, D. C.

Enclosures.

CAL:JEB

10-60

DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

YELLOWSTONE National Park

Report of Revenues, Month of DECEMBER, *191*1.

RECAPITULATION

(For use with Form 10-59.)

SOURCE.	Falling due and collected during month. (SCHEDULE A.)	Falling due previous months, collected this month. (SCHEDULE B.)	Falling due this month, but not collected. (SCHEDULE C.)	Falling due previous months and uncollected. (SCHEDULE D.)
LICENSE FEES AND RENTALS:				
Fixed charges	$ 500.00	$	$	$
Per capita charges	37,614.25			
Percentage of gross revenue or net profits	11,623.87			
MOTOR VEHICLE PERMITS:		Nothing	Nothing	Nothing
Automobiles	562.50			
Motor cycles	2.50	to	to	to
MISCELLANEOUS:				
Electric current	115.16	R eport	Report	Report
Telephone				
Water rent				
Timber sales				
Unclassified revenue				
Totals	$ 50,418.28	$	$	$
Less remittance fees				
Net totals	$ 50,418.28	$	$	$

SUMMARY

COLLECTIONS (NET).

Falling due and collected during month covered by report	$ 50,418.28	
Falling due during previous months, collected this month		
Total collections during month	50,418.28	
Total collections during previous months of year	111,909.17	
Total collections for year to end of this month		$ 162,327.45

DUE AND NOT COLLECTED.

Falling due during month covered by this report	$	
Falling due during previous months		
Total due and uncollected for the year (Nothing to report)		$
Total revenue at end of month covered by this report		$ 162,327.45

REMITTANCES.

License and motor vehicle fees previously remitted		$ 50,303.12
License and motor vehicle fees remitted herewith:		
Automobile permits	$	
Motor cycle permits		
Electric Current	115.16	
Miscellaneous revenues remitted herewith, being totals of miscellaneous columns of Schedules A and B attached	115.16	
TOTAL AMOUNT REMITTED HEREWITH		$ 115.16
TOTAL REMITTANCES FOR MONTH		50,418.28

Address correspondence to
"Official in Charge"

U. S. DEPARTMENT OF AGRICULTURE

WEATHER BUREAU

Yellowstone Park, Wyo.

NATIONAL PARK SERVICE
RECEIVED
JAN 4 19
YELLOWSTONE NATIONAL PARK

WEATHER CONDITIONS--MAMMOTH HOT SPRINGS.

D E C E M B E R, 1921.

Temperature: Monthly mean, 21.2°, is 0.4° below normal. During the 10-day period from the 16th to 25th, below zero temperatures were recorded on five days, the minimum of 16° below zero occurring on the 19th.

Precipitation: Total, 2.25 inches, is 0.43 inch above normal. With the exception of the first two days, there was practicably no precipitation until the 18th, but during the remainder of the month it was of daily occurrence.

Snowfall: Total, 26.3 inches, is 12.0 inches above normal. It has been exceeded but three times in December during the past 35 years. The greatest depth of snow on the ground was 17.4 inches on the 21st, and the December record, dating back to 1903, shows but two greater depths (1919 and 1916). There were 16.0 inches on the ground at the end of the month, which with the exception of the year 1919, is the greatest of record for the date.

Wind: Total movement was about normal. The maximum velocity of 42 miles on the 15th and 30th has been equalled twice but not exceeded in December.

Sunshine: Percentage of possible 38. Normal 41.

E. H. Fletcher,
Observer.

January 3, 1922.

Dec. — Upper Yellowstone District

23 Cow moose seen in

Upper Yellowstone in one days

Buffalo only one Bull seen

Elk appears that most of the

Bulls was Killed during hunting

Season.

Gallatin District

Estimated about 2,000 Gen
in the Game Preserve, on
Payton Fork, & quite a number
of Bulls Wintering on
Spearmint Creek

Prior Lide.

Most of the Game is
out of the Bear in
that District. no hope
from Dunn. in the Park.
the Lumber man has his
Reading Room of the Corridor door

from the J. M. Boone
+ Dayton. is getting all the
information he can + hope
to be able to make a drawing up.
in the spring.

January.3rd.1922.

Mr.Chester A.Lindsley.
Act'g.Superintendent.
Yellowstone National Park.
Yellowstone Park Wyo.

Dear Mr.Lindsley.

I have just returned from a four days ride over the North line as far as Crevice Station. and over Bald Mountin.near the old Smelter to Jardine Electric Aldridge and Phelps Creek. and have found the conditions as follows.

Dec.29th.and 30th. I was in the Crevice Country and found where quite a number of Elk had passed out of the Park.I found 55.Elk out near Mr Pickards Ranch.and drove them back in the Park.from the mouth of Bear Creek to the Crevice Sta. the Elk has been going out and in the Park.we have a large number of Deer rangeing in the Crevice ~~Basin~~ District all in Excellant condition. one Buck has been killed by wolves. near the Crevice Station.

Dec.31st.Mr Beller the Game Warden and myself made a trip up back of J Jardine.and up on Bald Mountin.finding plenty of Game sign passing out of the Park.and going in to the Phelps Range. the Elk out side of the Park is well scatered. and not being molested.Mr.Beller.and myself has estimated from five to seven hundard Elk out of the Park at presant Mr. Beller has caught five hunters out of seson.and thair fines ranged from $125.00 to.225.00 and I think it will stop some of the hunting.

Jan.2nd. I went to Electric Aldridge and aways up Reece Creek. Finding some old Game sign but on sign of hunters. I found 28.Antalope. at Electric.and thay seemed to be well contented.the Game Warden in that

District seems to think thay will not be molested.

we have had three Antalope killed by Coyotes.a long the fence near Mr. Hoppy Ranch.

I have been geting all the infermation I can from the old timers both in and out of the Park. and thay all seem to,agree with me regarding the Game going out of the Park after the hunting seson. It is my opinion that we loose more game by herding and driveing the game than we would by leting them go.and puting a man or two out side with the State game wordens.to follow the game herds.

I am going to start out tomorrow to make a trip thru the ~~nothern~~ Northern district. takeing in the Slugh Creek Ranches Buffalo Farm Hellroaring and the Crevice Basin. will be gone six or eight days and will make another report.shortly after I return.

S.T.Woodring.

S.T.Woodring.

DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
YELLOWSTONE NATIONAL PARK
YELLOWSTONE PARK, WYO.

OFFICE OF THE SUPERINTENDENT

January 3,1922.

Notes from Acting Chief Ranger Sam Woodring.

Has just returned from a four days' ride over and along the North Park line as far as Crevice Station, over Bald Mt. near the old smelter to Jardine, Electric, Aldridge, and Phelps Creek, and describes conditions as follows:

Dec.29th and 30th was in the Crevice country and found where quite a number of elk had passed outside of the park. Found 55 elk outside near Pickard's ranch and drove them back into the Park. From the mouth of Bear Creek to the Crevice Station the elk have been going out and in. A large number of deer ranging in the Crevice District, all in excellent condition, one buck killed by wolves near the Crevice Station.

December 31st, made a trip with Deputy Game Warden Frank Bellar up back of Jardine, and up on Bald Mountain, finding plenty of game sign passing out of the Park and going over to the Phelps Creek range. The elk outside are well scattered and are not being molested. Mr.Bellar and myself estimated 500 to 700 outside at present. Mr.Bellar has caught 5 hunters out of season, and their fines ranged from $125 to $225 each, and this fact will stop some of the illegal hunting.

January 2d went to Electric, Aldridge, and away up Reese Creek, finding some old game sign but no sign of hunters. Found 28 antelope outside at Electric, but they seem to be well contented and the deputy Game Warden in that district thinks they will not be molested.

Three antelope have been killed by coyotes, along the fence near the Hoppe ranch.

I have been getting all the information I can from the old timers in and around the Park, and they all seem to agree with me that we lose more game by herding and driving them than we would by letting them go and putting a man or two outside with the State's wardens to follow the herds up.

Am starting tomorrow to make a trip thru the Northern District, taking in Slough Creek hay ranches, Buffalo Ranch, Hellroaring and the Crevice Basin. Will be gone 6 or 8 days and will make another report shortly after my return.

S.T.Woodring.

DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
YELLOWSTONE NATIONAL PARK
YELLOWSTONE PARK, WYO.

OFFICE OF THE SUPERINTENDENT

January 4, 1922.

NOTES FOR MONTHLY REPORT, From Actg. Chief Game Warden, James McBride.

Dec.1-4 Hdqrs. supervising catching elk for N.Y.Zoo. Caught 2 females which were shipped Dec.6th with car buffalo in care Lacombe. 2 killed in capturing, due to unsatisfactory makeshift pens for catching.

Dec.5. Rode antelope range and counted 350 antelope, 500 elk, 7 mountain sheep along Gardiner road. All good condition and everything o.k.

Dec.6 Helped ship elk and buffalo.

Dec.7. Hdqrs. to Crevice Station. Seven elk crossed park line, between Gardiner and Crevice, the first that have gone out.

Dec.8. Helping men Crevice keep elk back.

Dec.9. Crevice to Hellroaring, meeting Trischman going to Hdqrs. Saw 400 elk on Crevice Creek, 600 in Cottonwood Basin.

Dec.10. Hellroaring to Upper Slough Creek ranch. Saw 700 elk between Hellroaring and Slough Creeks. 110 buffalo on feed grounds Lower Slough Creek ranch.

Dec.11. There were about 1,000 elk on feed grounds on Slough Creek. Went to Soda Butte Station, seeing 257 elk near Lamar River bridge, 450 in Lamar Canyon, about 300 near Buffalo Farm, about 100 near Soda Butte Creek.

Dec.12. Soda Butte to Tower Falls Station. Saw about 700 elk on Lamar River meadows above Buffalo Ranch, and about 1100 immediately across Lamar River from Buffalo Ranch. Also about 3000 north of the ranch. 127 buffalo on feed ground Slough Creek Flats again today.

Dec.13. Tower Falls to Hdqrs. Met Woodring & Trischman. Saw about 500 elk and 100 deer in the gut, and 2 moose.

Dec.14 & 15. At Hdqrs.

Dec.16. To Crevice Mt., helped get hay up there from Jardine on 17th.

(over)

Dec.18-20. Helping drive elk back along line vicinity Crevice Mt. Drove back several small bands.

Dec.21 Crevice to Hdqrs. Noted 32 deer near Bear Creek, about a thousand elk on Gardiner Flats, 200 elk along road to Mammoth, 100 antelope near Eagle's Nest, and 5 sheep in the Canyon.

22 to 26 At Headquarters.

Dec.27. To Gardiner and return. Saw about 150 antelope,1200 elk and 150 deer.

Dec.28. Hdqrs.to Tower Falls. Saw 300 elk and 2-moose, and 10 deer.

Dec.29. Tower Falls to.Upper Slough Creek Ranch. Saw about 250 elk between Yellowstone bridge and Lamar Bridge,1500 on feed grounds both ranches, 31 buffalo from tame herd at feed grou lower ranch.

Dec.30. Upper ranch to.lower ranch.

Dec.31. Slough Creek ranch to Hellroaring. Saw between Slough Creek and Hellroaring about 300 elk. Rangers at Hellroaring stated they had counted about 2600 elk on this range on Dec. 29th, but didn't know where they had gone.

GENERAL CONDITIONS:

Antelope are still in fine condition. There are about 30 outside of the park, these having gone around west end of the fence and out down Reese Creek. They are not being molested.

Elk are out in considerable numbers on Reese Creek.and Cinnabar Basin, coming from the Electric Peak herd. Approximately 500 elk have gone outside across the line between Gardiner and Crevice, but these also are being well protected and are not in any danger. The deputy game wardens are active and are assisted by Forest Rangers. The convictions.secured in November and heavy fines imposed have had the desired effect. The danger of illegal killing is less than usual.

While the policy of holding the elk back by constant patrols from Hellroaring and Crevice Stations has not been entirely successful and a few have gone by them, yet there are xxnyx but comparatively few of them gone, and in my opinion we should continue to try to hold them back until towards spring,.as really the greatest danger from poachers is in the spring when the bulls get weak and they may be hunted for teeth.

The feeding on Slough Creek is quite a success.. There were about 2,00 taking the hay there at the end of December. 3 loads a day were being fed from each of the two ranches daily, and the elk are taking it as fast as it can be hauled out.

James McBride

Acting Chief Game Warden.

December 31, 1921.

Brief Outline of Work accomplished during the month of Dec. by the Painting. Division.

Finished Stenetto Stns. Paintg. Varnishing. and Graining.
" Biketts. " Painting and Varnishing.
Started Burnejs Stns, Papering, painting and varnishing,
calcimining and graining.
Scogen and H. Farrell working in Coats-wagons-
painting & varnishing.

A. C. Neumann.

Fill out briefly and return to Mr. Lindsley before the 5th of the following month. Data needed for monthly report.

Janiy 7, 1921.

Brief Outline of Work accomplished during the month of
Dec. by the Plumbers Division.

Ds.

Bunneys Drs. Overhauled steam plant, ~~repaired grate~~ put in new grates. 4

1 New Radiator & repaired one in Community Home

New toilet & bath tub in Marshall's Drs.

Mr Hills - Installed 650 ft radiation.

Install general repairs.

Had a helper up to Dec. 20(?)

YELLOWSTONE
NATIONAL PARK
LIBRARY
4622

Fill out briefly and return to Mr. Lindsley before the 5th of the following month. Data needed for monthly report.